HIFI-STARS

REVIEW: I32 INTEGRATED AMPLIFIER AND CD32 CD PLAYER
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Nordic Combined

Naturally, we don't mean the Olympic discipline, introduced in 1924, but we are here to talk about maximum performance from a Nordic country: the latest power amplifier and CD player by Primare, a renowned Swedish manufacturer of high end hi-fi designs. The power amplifier I32 and the CD player CD32 were presented for the first time at IFA 2010 and have been on the market since the beginning of last year.

In issue 6 of HIFI-STARS the predecessors in the 30s series – the power amplifier I30 and the CD player CD31 – made a good impression on my colleague Wolfgang Vogel. Well, the elegant design, high-quality workmanship and rich features of the two newcomers I32 and CD32, have a similar effect on me at first glance.

Their exemplary packaging puts the icing on the cake. When unpacking test appliances I capture the individual steps with my camera to avoid having to fumble around when returning it. This time I can just forget it, since everything comes together logically, and is clear and well-defined. But let's keep both feet on the ground: high-quality hi-fi appliances are primarily to master one thing - music playback as close to the original as possible. It remains to be seen if the Nordic combination from the southern Swedish college city of Växjö can score here as well.

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Power amplifier I32 – exceptional ease of use

Let's look a bit closer at the power amplifier I32 as the command centre. Its design is oriented both at the Primare CD32 and other designs from Primare. The front panel has two massive knobs and four metal buttons. The left one controls the volume in fine steps - the display shows the selected level from 00 to 79. The right rotary knob serves to select the signal source; five high level inputs are available. Each signal source can be named using up to six characters, to be shown on the display. And more: individual sources can be adjusted for relative volume and balance, or can be removed from the list of selectable signal sources. This degree of versatility is rarely found even at this high quality level! Pressing the left button turns the amplifier on and back off to standby mode, The other three buttons control the menu. The remote control included operates both I32 and CD32. At the rear, above the power input, is the main switch for returning the power amplifier to standby mode. You can leave the unit in this mode without risking a visit from the Green party. In this position the I32 consumes a modest 0.2 Watts: well below the legal values. This is possible through a special power supply with PFC technology (Power Factor Correction). Still, a more solid mains cable would have been more appropriate to the quality of this product – and the same applies to the CD32. More sense of quality is given by the speaker terminals. The I32 offers two balanced XLR input pairs and three unbalanced RCA inputs, as well as one record and one pre amp output, both in RCA design.

Optional media module

Right above the analogue connectors is space for the optional media module, which extends the possibilities of the I32 significantly. In this case the amplifier is fitted with a 24-bit/192 kHz streaming functionality. This means: Internet radio, audio streaming, DAB, FM tuner and playback from Apple iPod, iPhone or USB memory stick. Even network integration via Ethernet port and Wi-Fi is said to be possible. That is all Primare will reveal at this time: the launch date and the retail price for this upgrade are to be confirmed. But let us stay with the existing test product. The electronics are housed in a solid steel alloy chassis. This guarantees, according to Primare, not only stability and necessary shielding, but also the suppression of external vibration. Inside the I32 are two discrete UFPD amplifiers. The pre amp unit is separated from the final amplifier section to reduce distortion. The pre amp has its own power supply.

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Innovative UFPD technology for audiophile Class D concept

The aforementioned UFPD – the acronym stands for 'Ultra Fast Power Device' – is a special class D circuit, whose technology allows, among other things, extreme low power consumption.

But class D amplifiers do not have the best reputation in terms of audio quality, especially due to the increasing THD values for higher frequencies, increased noise and a load-dependent frequency response. These audiophile 'bad habits' have been overcome for Primare's Class D amplifier. UFPD technology allows for an 'audiophile' Class D result: wide bandwidth, linear and load-independent frequency response, low output impedance and low THD values in the entire audio range as well as low noise values. The performance of the Primare I32 with 2 x 120 watts at 8 ohms (2 x 230 watts/4 ohms) would be more than enough for most 'normal' applications. But Primare certifies this UFPD amplifier to drive and control just about any speaker. So this is maybe a tip for all those using 'exotic' speakers?

CD32 – design not only tuned for the I32

The CD32 design perfectly matches the I32's. It's controlled with only three buttons and a relatively small OLED display. The similarities with the I32 continue inside, since the CD32 is housed in a steel alloy chassis to keep external vibration out – which is especially important for a CD player. Naturally, this affects the weight, with dimensions of 430 x 385 x 110 mm, the CD32 weighs 9 kg! The slightly shorter I32 weighs just a little more at approx. 11 kg. The CD32, like the I32, is switched on at the rear. But generally only the standby button on the front left is used. The two buttons on the right hand side of the CD drive control play, pause and stop functions and opening/closing the tray, from which, if it would extend a bit further, it would be easier to insert and remove CDs. For most other functions the included remote control must be used. The CD32 is easy to connect. Analogue signals are transmitted either via a pair of balanced outputs (XLR) or an unbalanced pair of RCAs. For digital outputs you can choose between AES/EBU (XLR), S/PDIF (RCA) and optical (TOSLINK). Even a USB and a RS232 port can be found at the rear. In this way mp3/WMA files from USB stick can be played. A jack for the IR link to the I32 is also at the rear, which when used automatically sets the OLED display of both appliances to the same brightness. Convenient!

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Trimmed to audiophile demands

Today most CD players use a multi format platform CD/DVD transport mechanism. But Primare treats the CD32 to an excellent CD reader with Sanyo laser. The servo unit, based on a Toshiba controller, comes with a five-second data buffer for best jitter suppression and anti shock performance. Signal processing is done by two Burr-Brown DAC PCM 1704s and a digital filter DF 1706. Primare believes that this is the best true-multi-bit-DAC/filter available.

The sampling rate for signal processing can be set with the remote control: 44.1kHz, 48kHz or 96kHz at 24-bit are available. I preferred the latter setting for playback, and it is recommended by Primare. Primare's engineers have created an audiophile architecture for the CD32. Condensers are omitted in the signal path. Instead a DC servo controls possible offset voltage upstream and downstream of the two DACs and counteracts this voltage. SMD technology and separate board modules are deployed to keep the signal paths as short as possible and to have them separated from each other. New is a high performance switching power supply for the micro-processor. The other analogue and digital circuits are supplied by a toroidal transformer with separate windings. Voltage control is affected by individual LC filters and discrete control elements: a sophisticated concept, which ensures high fidelity, according to Primare. The I32 and CD32 are – from the technological point of view – a completely new development. But is the effort worthwhile for the audiophile music lover? I integrated both appliances with my equipment and made sure of correct signal and power phase. Fortunately, the user manual provides useful information for this. I connected the CD32 via the balanced connectors to the I32, since they are the first choice for appliances like this. A long run-in (at least 24 hours) is recommended by Primare. This seems necessary. Although the spatial information is impressive during listening, the playback of instruments still seems to be rough and hard.

Now listening

Two days and several hundred km later I arrive at home with a brand new CD and make for my listening room. Of course I've listened to the CD in the car and I like two or three tracks right away. So now I want to know how it sounds via the Primare duo! Excitedly I insert the silver disc in the CD32 - and one title after another draws my attention. Suddenly, it's not only two or three tracks that are captivating me, there are twice as many! Amazing, what a good playback chain can achieve! The Nordic player-amplifier-duo maps the instruments in their correct size, and places them in a

fixed position. The CD is a 1987 recording with jazz legend Sarah Vaughan, singer and composer Milton Nascimento and other great musicians such as Paulinho da Costa, Hubert Laws and George Duke (Sarah Vaughan/Brazilian Romance, Blu Spec CD/Sony Music Japan International SICP 20117). In the title song 'Romance', the string section changes between delicate and voluminous; Sarah Vaughan's vocals emerge wonderfully clearly. 'Love And Passion' captivates me with the duet of the American and the Brazilian singer/songwriter Milton Nascimento. The Primare duo positioned the individual instruments in their correct size and place on every track. The small print in the booklet text reveals that 'sound magician' Bernie Grundman took care of the mastering of these recordings and ensured the respective quality. But how is it with a completely 'normal' recording: 'The Best Of Manhattan Transfer' (Atlantic 7567-81582-2) for instance? Compared to the vinyls of this US vocal group the CD regularly comes second – at least according to my taste. Well, after the first beats of 'Tuxedo Junction' I am surprised how well it sounds via the Primare combo. Here everything matches – the timing and the fine musical structures, the naturalness of the vocals, the precision in the bass range. I remember that among the CD player/ power amplifier combos, which I have heard so far, only three – and all from the top quality range – sounded this emotionally captivating.

Positive surprise with my favourite CD as well

I got a further positive surprise when inserting Modest Mussorgsky's 'Pictures at an Exhibition' in the original piano version with the American pianist Byron Janis. This is a Mercury Living Presence production, which was recorded in 1961, but only published on CD in 1994. It is one of my absolute favourites, impressing me with excellent consistency through beautiful timbres and good three-dimensionality (Byron Janis plays Mussorgsky, Mercury 434 346-2). The Primare combo puts exactly the feeling across. The 9th Symphony by Antonin Dvorák, 'From the New World', is represented in my classic collection with several orchestras and conductors. My personal favorite is the 1961 recording with the Czech Philharmonic conducted by Karel Ancerl (JVC JM-XR24206). With this XRCD the Swedish duo presented the great symphony orchestra in its entire width and depth.

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Finally I integrated the I32 and CD32 individually with my system, to locate the sound characteristics or possible weak points. The result: both devices work exceptionally in the playback chain and resolve details perfectly. Drive and musicality are impressive but showy effects are foreign to them. I will say the better the team mate, the higher the quality from the speakers. For decades Norway has dominated the Olympic discipline of the Nordic Combined, comprising ski jumping and cross-country skiing. However, in the Nordic Combined for the audiophile music lover, the Swedes are leading. And they have the best chance for a top position. Maybe shortly in your home? To the point the Primare combo consisting of CD player CD32 and power amplifier I32 has what it takes for a true dream team. The Swedish manufacturer Primare shows that with regard to sound, ease of use, workmanship, design and sustainability (through the optional media module) a really fair price is possible. Good chance for a medal!